

ABSTRACT

An image sensing circuit and method is disclosed, wherein a photodiode is formed in a substrate through a series of angled implants. The photodiode is formed by a first, second and third implant, wherein at least one of the implants are angled so as to allow the resulting photodiode to extend out beneath an adjoining gate. Under an alternate embodiment, a fourth implant is added, under an increased implant angle, in the region of the second implant. The resulting photodiode structure substantially reduces or eliminates transfer gate subthreshold leakage.